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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,851	12/28/2001	John N. Kesler	30826-1001	2797

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EXAMINER

VEILLARD, JACQUES

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/040,851

Applicant(s)

KESLER, JOHN N.

Examiner

Jacques Veillard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12, 14-19 and 21 is/are rejected.
- 7) ☐ Claim(s) 6, 13 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the applicant's communication filed on 6/14/2004.
2. Claims 1-21 are pending and presented for examination.

Request for Reconsideration

3. Applicant's request for reconsideration of the finality of the rejection of the last Office action, based on the Rule 131 Declaration filed by the Applicant, is persuasive and, therefore, the finality of that action is withdrawn. A non-final action is issue on the merit.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the claim recited in the preamble a computer software for automatically generating a user interface for a relational database, said software comprising: Utility software; a repository, ...it is not clear for the examiner to determine whether the repository is a software or a hardware because there is no correlation between the preamble and the body of the claim.

Explanation and appropriate correction is required.

Claim Rejections - 35 USC § 101

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6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a non-statutory subject matter.

As per independent claim 1, the preamble recites only software per se which is not tangibly embodied and is therefore not statutory.

As per independent claim 8, the means for extracting schema information, correspond to the means for a utility software "per se" does extracting schema information, which is not tangibly embodied; therefore, is not statutory.

The dependent claims 2-7, and 9-14, being further limiting to the independent claims 1 and 8, are also rejected under 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 5, 8, 9, 12, 15, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson et al. (U. S. Pat. No. 6,631,519, hereinafter Nicholson) and Heubner et al. (U. S. Pat. No. 6,101,502, hereinafter Heubner).

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitation are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 88USPQ 478, 481 (CCPA 1951). Accordingly the elements recited in the preamble of claim 1 have not been given any patentable weight.

As per claim 1, Nicholson teaches “an automated generation of schema and interface” by providing a schema definition file comprising collection classes (See Nicholson Title and Abstract). In Particular, Nicholson teaches the claimed limitations of “utility software extracting schema information from the relational database and automatically generating corresponding schema and user interface metadata “ by providing a component generator that traverses the collection classes and generates computer program source code defined in the schema definition data (See Nicholson Abstract, col.2, lines 20-32, col.5, line 39 through col.6, line 48, and col.col.9, lines 40-50). Further, Nicholson teaches the claimed limitations of “a repository for storing said metadata” by providing a database for persistent storage of the objects (See Nicholson Abstract, and col.2, lines 27-32, col.6, lines 20-24, and col.7, lines 24-32). Nicholson does not explicitly teach the claimed limitations of “and user interface software automatically developing from the metadata a user interface appropriate to the relational database”.

However, Heubner teaches an object model mapping and runtime engine for employing relational database with object oriented software (See Heubner Title and Abstract) including the features of “user interface software automatically developing from the metadata a user interface

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appropriate to the relational database”(See Heubner col.1, line 56-through col.2, line 5, and col.5, lines 62 through col.6, line 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the object model mapping and runtime engine for employing relational database with object oriented software of Heubner by incorporating the automated schema and interface generation mechanism taught by Nicholson. The motivation being to have enhanced the system of Heubner by allowing it to generate schemas and interfaces automatically (See Nicholson col.5, lines 48-56).

As per claims 8 and 15, the claims have substantially the same limitations as claim 1. These limitations have already been addressed in the rejection of claim 1. There, they are rejected on similar grounds corresponding to the arguments given for the rejected claim 1 above.

As per claims 2, 9, and 16, the combination of Nicholson and Heubner, as modified, teaches the claimed limitations of “wherein said schema and user interface metadata comprise entities, entity fields, entity relationships, and entity search paths” (See Nicholson Fig.3, and corresponding text).

As per claims 5, 12, and 19, the combination of Nicholson and Heubner, as modified, teaches the claimed limitations of “wherein said schema and user interface metadata additionally comprises platform attributes for; abstracting syntactic differences between database implementations” (See Nicholson col.10, lines 3-65).

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9. Claims 3, 4, 7, 10, 11, 14, 17, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson et al. (U. S. Pat. No. 6,631,519, hereinafter Nicholson) and Heubner et al. (U. S. Pat. No. 6,101,502, hereinafter Heubner) as applied to claims 1, 8, and 15 above, and further in view of Althoff et al. (U. S. Pat. No. 6,374,252, hereinafter Althoff).

As per claim 3, the combination. Of Nicholson and Heubner, as modified, fails to teach the claimed limitations of “wherein said schema and user interface metadata comprise entity relationships comprising one-to-many, many-to-one, and many-to-many relationships”.

Althoff teaches a method for modeling of object-oriented database structure wherein the user may create, edit, and manipulate a user’s object database including the claimed limitations of “wherein said schema and user interface metadata comprise entity relationships comprising one-to-many, many-to-one, and many-to-many relationships”(See Althoff Abstract, and col.4, lines 5-22).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination teachings of Heubner and Nicholson by the method for modeling of object-oriented database structure taught by Althoff because Althoff provides a meta model system comprises a set of classes, objects and relationships between them. These relationships may comprise an inheritance relationship or a data-model relationship (such as a one-to-one, one-to-many or many-to-many relationship) allowing the combination of Nicholson and Heubner to manipulate objects data efficiently. (See Althoff col.3, lines 24-44).

As per claims 10 and 17, the claims have substantially the same limitations as claim 3. These limitations have already been addressed in the rejection of claim 3. There, they are rejected on similar grounds corresponding to the arguments given for the rejected claim 3 above.

As per claims 4, 11, and 18, the combination of Nicholson, Heubner and Althoff, as modified, teaches the claimed limitations of “wherein said automatically developed user interface comprises context menus specific to type of entity relationship” (See Althoff col.4, lines 44-56, and col.6, line 55 through col.7, line 6).

As per claims 7, 14, and 21, the combination of Nicholson, Heubner and Althoff, as modified, teaches the claimed limitations of “wherein said utility software refreshes said metadata after schema changes are made to the relational database”(See Althoff col.11, lines 20-46).

Allowable Subject Matter

10. Claims 6, 13, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

The prior art taken alone or in combination fail to teach or suggest a method or system additionally comprising software permitting addition of non-automatically-generated functionality to said developed user interface selected from the group consisting of scripts, external components, business rules, and triggers as recited in claims 6, 13, and 20.

Other Prior Art Made Of Record

- | | | |
|-----|----------------|-------------------------------|
| 12. | Brunner et al. | U. S. Pat. No. 5,550,971, |
| | Golberg et al. | U. S. Pat. No. 6,496,833, and |
| | Hurwood et al. | U. S. Pat. No. 6,697,808. |

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. **Any response to this action should be mail to:**

Commissioner of Patent and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 746-7239 (for formal communication intended for entry)

Or:

(703) 746-7240 (for informal of draft communications, please label

"PROPOSED" or "DRAFT")

Hand - delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington.

VA, Fourth Floor Lobby (Receptionist Telephone No. (703) 305-3900).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques Veillard whose telephone number is (703) 305-7094. The examiner can normally be reached Monday through Friday from 9:30 AM to 4: 30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached on (703) 305-3830. The fax phone number for this group is (703) 308-5403.

Jacques Veillard

Jacques Veillard
Patent Examiner TC 2100

August 10, 2004

C. Rones
CHARLES RONES
PRIMARY EXAMINER